I claim:

1. A disk type D.C. motor comprising:

a stationary case constructed of a non-ferrous material;

a motor shaft positioned within the case on a central axis of the motor;

a rotor fixedly attached to said motor shaft perpendicular to said central axis, said rotor being in the shape of a circular disk;

an even plurality of magnets encased within said rotor equally spaced proximate a peripheral edge thereof, adjacent ones of the plurality of magnets being of opposite magnetic polarity;

a like plurality of pairs of facing ferromagnetic pole pieces fixedly mounted within said case, each pair of facing pole pieces being spaced in correspondence with said plurality of magnets, the facing pole pieces of each pair being positioned on opposite sides of said rotor in spaced proximity to one of said plurality of magnets, the facing pole pieces of each pair being in firm contact with a core that is mounted within said case outside said peripheral edge of said rotor, each of the cores being wound with a coil such that an electric current flowing in the coil induces a magnetic polarity in an associated pair of pole pieces.

2. A motor as in claim 1, further comprising electronic circuitry for selectively energizing the coils wound around each of the cores.

3. A motor as in claim 2, wherein said electronic circuitry is operative for controlling cycle time and polarity of a voltage applied to each of the coils to thereby control the speed of the motor.

4. A motor as in claim 1, further comprising an output flange fixedly

attached to said motor shaft for coupling the motor to a load.

5. A motor as in claim 1, wherein said plurality of magnets comprises a plurality of permanent magnets.

6. A motor as in claim 1, wherein said plurality of magnets comprises a plurality of electromagnets.

7. A disk type D.C. motor comprising:

a stationary case constructed of a non-ferrous material;

a motor shaft positioned within the case on a central axis of the motor;

a plurality of rotors fixedly attached to said motor shaft perpendicular to said central axis and parallel to each other, each of said rotors being in the shape of a circular disk;

an even plurality of magnets encased within each of said rotors equally spaced proximate a peripheral edge thereof, adjacent ones of the plurality of magnets being of opposite magnetic polarity;

a like plurality of pairs of facing ferromagnetic pole pieces fixedly mounted within said case, each pair of facing pole pieces being spaced in correspondence with said plurality of magnets, the facing pole pieces of each pair being positioned on opposite sides of each of said rotors in spaced proximity to one of said plurality of magnets, the facing pole pieces of each pair being in firm contact with a core that is mounted within said case outside said peripheral edge of each of said rotors, each of the cores being wound with a coil such that an electric current flowing in the coil induces a magnetic north-south polarity in an associated pair of pole pieces.

8. A motor as in claim 7, further comprising electronic circuitry for

selectively energizing the coils wound around each of the cores.

9. A motor as in claim 8, wherein said electronic circuitry is operative for controlling a cycle time and polarity of a voltage applied to each of the coils to thereby control the speed of the motor.

10. A motor as in claim 7, further comprising an output flange fixedly attached to said motor shaft for coupling the motor to a load.

11. A motor as in claim 7, wherein said plurality of magnets comprises a plurality of permanent magnets.

12. A motor as in claim 7, wherein said plurality of magnets comprises a plurality of electromagnets.